

# **Fitchburg Gas and Electric Light Company**

## **Performance Based Regulation Plan**

### **Gas Division**

**April 16, 2002**

## **TABLE OF CONTENTS**

I.	INTRODUCTION .....	1
A.	Provisions and Applicability.....	1
B.	Components of Plan.....	2
II.	INITIATION AND TERM OF PLAN.....	2
A.	Initial PBR Cast-Off Rates.....	2
B.	Term of Plan.....	3
C.	Annual Compliance Filings.....	4
III.	PRICE CAP MECHANISM .....	5
A.	Price Cap Calculation.....	5
A.1.	Weighted Average Price.....	6
A.2.	Inflation Index.....	7
A.3.	Enhance Productivity Offset .....	8
A.4.	Exogenous Cost Factor.....	8
A.5.	Service Quality Revenue Penalty Factor.....	9
B.	Application of Price Cap Adjustment .....	9
C.	Special Contracts.....	10
D.	Price Cap Compliance Filing.....	10
IV.	SERVICE QUALITY PLAN .....	12
A.	Service Quality Measure .....	12
B.	Benchmarking .....	12
C.	Application of Revenue Penalty.....	13
D.	Annual Compliance Filing .....	13

# **FITCHBURG GAS AND ELECTRIC LIGHT COMPANY**

## **GAS DIVISION PBR PLAN**

### **I. INTRODUCTION**

#### **A. Provisions and Applicability**

This document describes the Performance Based Regulation Plan (“PBR Plan”) for the Gas Division of Fitchburg Gas and Electric Light Company (“FG&E”). FG&E’s PBR Plan for its Gas Division is intended to fully comply with G.L. c. 164, ¶ 1E and the Massachusetts Department of Telecommunications and Energy (the “Department”) rules and regulations requiring local gas and electric distribution utilities to establish performance-based rates.

Over the term of the PBR Plan, tangible benefits should accrue to both FG&E and its customers by providing FG&E with strong incentives to continue to provide safe and reliable service, while improving operating efficiencies, limiting increases in average customer rates to less than the rate of inflation, ensuring that FG&E provides quality customer service (and requiring revenue penalties if service does not meet defined standards), and reducing regulatory and administrative costs.

## **B. Components of Plan**

The PBR Plan is comprised of three major components: 1) Initial PBR Cast-Off Rates; 2) Price Cap Mechanism; and, 3) Service Quality Plan. The Initial PBR Cast-Off Rates establish the starting point for initiation of the PBR Plan. The Price Cap Mechanism (“Price Cap”) allows FG&E to adjust its gas distribution base rates and gas production base rates<sup>1</sup> (collectively referred to herein as “Base Rates”) annually over the term of the PBR Plan by a factor that reflects price inflation reduced by an enhanced productivity offset, and adjusted for an exogenous cost factor and a service quality revenue penalty factor where appropriate. The Gas Service Quality Plan (“SQP”), attached hereto as Appendix A, provides a revenue penalty of up to 2% of FG&E’s gas distribution base revenues if FG&E fails to maintain specified levels of service quality as defined in FG&E’s SQP for its Gas Division.

## **II. INITIATION AND TERM OF PLAN**

### **A. Initial PBR Cast-Off Rates**

FG&E will file a general rate case for its Gas Division on May 17, 2002, to establish the Initial PBR Cast-Off Rates for initiation of the PBR Plan. The PBR Plan begins

---

<sup>1</sup> Gas distribution base rates are defined as the distribution rate components of FG&E’s Tariff for Gas Service, consisting of the customer, volumetric, and demand charges. Gas production base rates are defined as the gas supply related components consisting of the Liquefied Propane and Liquefied Natural Gas (“LPLNG”), Distribution, Acquisition, and FERC Proceedings (“DAFP”), and Production and Related Overhead (“PRO”) rate factors, which are included in FG&E’s Cost of Gas Adjustment Clause (“CGA”).

on January 1, 2003 predicated upon the Initial PBR Cast-Off Rates becoming effective on or before December 1, 2002. The Base Rates established in this proceeding provide the starting point for the necessary periodic rate adjustments under the Price Cap component of the PBR Plan.

**B. Term of Plan**

The PBR Plan has a term of ten years from January 1, 2003 through December 31, 2012, with an interim review provided for after five years of operation under the PBR Plan. On or before May 1, 2008, FG&E will file information with the Department on the performance of the PBR Plan during its first five years of operation. FG&E may propose either (1) the Plan be retained as currently structured for the remainder of the ten-year term, (2) specific modifications in the Plan be made for the remainder of the term, or (3) the Plan be terminated prior to the end of the ten-year term.

On or before May 1, 2012, FG&E will provide the Department with a recommendation and supporting rationale pertaining to the disposition of the PBR Plan at the end of its ten-year term. The recommendation may call for (1) retention of the PBR Plan as currently structured, (2) specific modifications to the PBR Plan, or (3) require termination of the PBR Plan.

---

### **C. Annual Compliance Filings**

During the term of the PBR Plan, FG&E will make two separate compliance filings each year. The first compliance filing will consist of FG&E's Annual Service Quality Report and will be made on March 1<sup>st</sup> of each successive reporting year. The Annual Service Quality Report is filed by FG&E to report service quality performance in the previous calendar year and to calculate revenue penalties, if any, associated with FG&E's performance under its SQP. The second annual compliance filing will consist of FG&E's Price Cap adjustments and supporting information and documentation. The Price Cap adjustments will be filed on May 1, 2004 and each successive year, for rate adjustments effective July 1<sup>st</sup> of the same year.

The first Price Cap adjustments will occur on July 1, 2004, or 19 months after the effective date of the Initial PBR Cast-Off Rates, with subsequent adjustments effective each July 1<sup>st</sup> thereafter through July 1, 2012. During the period between the effective date of the Initial PBR Cast-Off Rates (i.e. December 1, 2002) and the first Price Cap adjustments on July 1, 2004, FG&E's Base Rates will remain unchanged. Revenue penalties determined in accordance with FG&E's approved SQP, if any, are incorporated into the annual Price Cap adjustment for distribution base rates, beginning with revenue penalties calculated based on calendar year 2003 performance.

### III. PRICE CAP MECHANISM

#### A. Price Cap Calculation

FG&E's Base Rates are adjusted annually using two separate price cap calculations:

1) For gas distribution base rates, the price cap calculation for a given year, year t, is performed as follows:

$$P_t = P_{t-1} \times (1 + I_t - X_t + Z_t - S_t)$$

where:

$P_t$  = FG&E's weighted average price in year t

$P_{t-1}$  = FG&E's weighted average price in the prior year, year (t-1)

$I_t$  = Inflation index for year t, based on the inflation rate between calendar year (t-2) and calendar year (t-1)

$X_t$  = Enhanced productivity offset for year t

$Z_t$  = Exogenous cost factor in year t

$S_t$  = Service Quality Revenue Penalty factor in year t

The overall percentage price change, used to compute Price Cap rate adjustments for each customer class equals  $(P_t / P_{t-1}) - 1$ .

2) For each of the three gas production base rate components (i.e. LPLNG, DAFFP, and PRO) the Price Cap calculation for a given year, year t, is performed as follows:

$$P^*_t = P^*_{t-1} \times (1 + I_t - X_t)$$

where:

$P^*_t$  = FG&E's gas production base rate component in year t

$P^*_{t-1}$  = FG&E's gas production base rate component in the prior year, (t-1)

$I_t$  = Inflation index for year t, based on the inflation rate between calendar year (t-2) and calendar year (t-1)

$X_t$  = Enhanced productivity offset for year t

The overall percentage price change, used to compute Price Cap rate adjustments for each production base rate component equals the net change in the Inflation Index ( $I_t$ ) and the Enhanced Productivity Offset ( $X_t$ ), or ( $I_t - X_t$ ).

In both of the above Price Cap calculations, if the Inflation Index ( $I_t$ ) is less than the Enhanced Productivity Offset ( $X_t$ ), then the term ( $I_t - X_t$ ) will be set to zero for purposes of the Price Cap calculation.

#### A.1. Weighted Average Price

The weighted average price used in the distribution base rate Price Cap calculation ( $P_{t-1}$ ) for the prior calendar year t-1, is calculated by dividing weather-normalized revenue in the prior calendar year by weather-normalized gas

volumes, stated in therms, in the prior calendar year. Weather normalized revenue in the prior calendar year, is derived by applying weather normalized base distribution rate billing determinants in the prior calendar year, to the current base distribution rate components in effect at the time of the Price Cap calculation. Weather normalization will be performed in accordance with procedures employed by the Department in establishing FG&E's revenue requirement in FG&E's 2002 general rate case for its Gas Division.

#### A.2. Inflation Index

The Inflation Index ( $I_t$ ) is based on the Gross Domestic Product chain-weighted Price Index ("GDP-PI"), maintained by the U. S. Department of Commerce. The Inflation Index for calendar year t, which measures the inflation rate between calendar year (t-1) and calendar year (t-2), is calculated as follows:

$$\left( \frac{\text{GDP-PI}_{t-1}}{\text{GDP-PI}_{t-2}} \right) - 1$$

where:

$\text{GDP-PI}_{t-1} = (\text{GDP-PI}_{t-1, Q1} + \text{GDP-PI}_{t-1, Q2} + \text{GDP-PI}_{t-1, Q3} + \text{GDP-PI}_{t-1, Q4}) / 4$ , or  
the average of the GDP-PI at the end of each of the four quarters of  
calendar year (t-1)

$\text{GDP-PI}_{t-2} = (\text{GDP-PI}_{t-2, Q1} + \text{GDP-PI}_{t-2, Q2} + \text{GDP-PI}_{t-2, Q3} + \text{GDP-PI}_{t-2, Q4}) / 4$ , or  
the average of the GDP-PI at the end of each of the four quarters of  
calendar year (t-2)

A.3. Enhanced Productivity Offset

FG&E's Enhanced Productivity Offset is composed of a base productivity factor and a consumer dividend and is set at 0.5%.

A.4. Exogenous Cost Factor

The Exogenous Cost Factor consists of cost changes, both positive and negative, beyond FG&E's control and not reflected in the Inflation Index, including but not limited to, cost changes directly affecting the local gas distribution industry resulting from (1) changes in tax laws, (2) accounting changes (3) regulatory, judicial and legislative changes; and, (4) force majeure.

Exogenous costs may be recurring or nonrecurring. The impact of individual exogenous costs must exceed a threshold level of \$25,000 in a particular year to qualify for recovery. The Exogenous Cost Factor in year t is calculated as follows:

$$Z_t = (C_t - NC_{t-1}) / R_{t-1}$$

where:

$Z_t$  = Exogenous Cost Factor in year t

$C_t$  = Incremental Exogenous cost in year t

$NC_{t-1}$  = Non-recurring Exogenous cost in year (t-1)

$R_{t-1}$  = FG&E's weather-normalized gas distribution base revenue in year (t-1)

Recovery of exogenous costs are subject to Department approval. Proponents of exogenous cost recovery bear the burden of demonstrating that the exogenous costs were (1) beyond FG&E's control, and (2) not reflected in the Inflation Index.

#### A.5. Service Quality Revenue Penalty Factor

The Service Quality Revenue Penalty Factor consists of revenue penalties, if any, in accordance with FG&E's SQP in Appendix A. The Service Quality Revenue Penalty Factor in year t is calculated as follows:

$$S_t = (Q_t - Q_{t-1}) / R_{t-1}$$

where:

$S_t$  = Service Quality Revenue Penalty Factor in year t

$Q_t$  = Service Quality Revenue Penalty in year t

$Q_{t-1}$  = Service Quality Revenue Penalty in year (t-1)

$R_{t-1}$  = FG&E's weather-normalized gas distribution base revenue in year (t-1)

### **B. Application of Price Cap Adjustment**

The overall percentage gas distribution base rate price change calculated under the Price Cap will be applied uniformly across the board to weather normalized revenues and the existing Base Rate components (i.e. customer, volumetric and demand) for

each customer class, beginning with the first Price Cap adjustments on July 1, 2004. During the term of the PBR Plan, FG&E may propose non-uniform application of the Price Cap adjustments consistent with Department precedent. The production base rate percentage price change calculated under the Price Cap will be applied to each of the production base rate components (i.e. LPLNG, DAFP, and PRO rate factors).

### **C. Special Contracts**

During the term of the PBR Plan, FG&E may negotiate special contracts with general service customers in accordance with Department policies. The contractual price and related service conditions will become effective upon FG&E filing the special contract with the Department and will remain in effect until the expiration date of the contract or the end of the PBR Plan, whichever occurs first. Revenue received from any such special contracts will not be subject to or included in the Price Cap adjustments.

### **D. Price Cap Compliance Filing**

Price Cap adjustments under the PBR Plan are based on a filing made by FG&E each May 1<sup>st</sup>, beginning in 2004, and continuing for each subsequent year during the term of the Plan through 2012. The Department will approve Base Rate adjustments under the Plan by June 15<sup>th</sup> of each year to become effective on July 1<sup>st</sup> of each year.

The computational format for the Price Cap adjustments to be included with each compliance filing is shown in Schedule 1. The following additional Schedules will be provided with each compliance filing:

- Schedule 2: Quarterly GDP-PI data and the Inflation Index
- Schedule 3: Calculation of Service Quality Revenue Penalty Factor
- Schedule 4: Calculation of Exogenous Cost Factor
- Schedule 5: Calculation of Normalized Revenues for the Prior Year
- Schedule 6: Development of Gas Distribution Base Rates
- Schedule 7: Development of Gas Production Base Rates.

In addition to these schedules, FG&E will furnish documentation supporting its calculations as appropriate, including bill impacts by customer class.

#### **IV. SERVICE QUALITY PLAN**

##### **A. Service Quality Measures**

FG&E's SQP for its Gas Division, attached hereto as Appendix A, includes the following defined performance measures:

##### **Customer Service and Billing Performance Measures**

- Telephone Service Factor

- Service Appointments Met As Scheduled
- On-Cycle Meter Readings

#### **Customer Satisfaction Measures**

- Consumer Division Cases
- Billing Adjustments

#### **Safety Performance Measures**

- Response to Odor Calls
- Lost Work Time Accident Rate

There are other service quality reporting requirements that are not subject to revenue penalties. These reporting requirements are described and discussed in Appendix A, FG&E's Gas SQP, and include: Consumer Surveys, Staffing Level Benchmarks, Unaccounted for Gas, Restricted Work Day Rate, Damage to FG&E Property, Capital Expenditure Information, Spare Component and Acquisition Inventory Policy and Practice, and Other Safety Performance Measures.

### **B. Benchmarking**

The historical average and standard deviation for benchmarking is based on the ten most recent years of data for FG&E. This is a fixed average for the duration of the PBR Plan. Where ten years of information is not available, FG&E will use the maximum number of years of data available, so long as three years are available. If

three years of data is not available for a particular performance measure, this measure will be excluded from the revenue penalty calculation. As FG&E collects additional data, the average and standard deviation will be updated annually in benchmarking until ten years of data is collected. The benchmarking calculation procedures are described in Appendix A, FG&E's Gas SQP.

### **C. Application of Revenue Penalty**

FG&E's SQP for its Gas Division provides for revenue penalties of up to 2% of base distribution revenues if FG&E fails to maintain specified levels of service quality. FG&E will calculate revenue penalties, if any, associated with service quality performance measures as described in Appendix A, FG&E's Gas SQP, on a calendar year basis.

### **D. Annual Compliance Filing**

In accordance with the SQP for its Gas Division each year during the term of the PBR Plan, FG&E will make a compliance filing by March 1<sup>st</sup> that summarizes the calculation of any revenue penalties associated with FG&E's performance under its SQP for the prior calendar year. The first Annual Service Quality Report under this PBR Plan for which penalties would apply covers performance for calendar year 2003.

In the event that FG&E's service quality performance results in revenue penalties for any calendar year, FG&E will reflect this amount as an offset in the calculation of the Price Cap adjustment for distribution base rates. FG&E will furnish details of the calculation of revenue penalties in each March 1<sup>st</sup> Annual Service Quality Report compliance filing. Any calculated revenue penalties reviewed and approved by the Department will be included in the Price Cap calculation, effective July 1<sup>st</sup> of each year.

In the event the Department alters the SQP structure, measurement, calculation procedures, or benchmark calculation during the term of the PBR Plan, FG&E may terminate the PBR Plan, or propose modifications to the PBR Plan.